

**REMARKS**

In response to the Advisory Action mailed January 23, 2006, please consider the following remarks. Favorable reconsideration of the application is respectfully requested.

Claims 1-9, 11-54, 56 and 57 are pending in the application. Of these claims, claims 1-7, 11-52, 54, 56 and 57 are withdrawn from consideration. Claims 8 and 9 are allowed.

Claim 53 has been rejected under 35 U.S.C. 103(a) as being unpatentable over Hansen (U.S. 4,405,680) in view of George et al. (U.S. 5,516,573). Claim 53 has now been amended to specifically recite that the top surface layer of the coating is an asphalt-based top surface layer. The amended claim reads in part as follows:

"53. An asphalt-based roofing material comprising:

a nonwoven mat of glass fibers saturated and coated with an asphalt-based coating, the coating including asphalt and from about 30% to about 75% filler by weight of the coating, the coating including a top portion covering the top of the mat having first properties, a mat portion saturating the mat having second properties, and a bottom portion covering the bottom of the mat having third properties, wherein one of the second properties and the third properties is dissimilar to the first properties, the roofing material further comprising a layer of surface granules embedded in the top portion of the coating;

wherein the coatings comprise one of the group consisting of:

(H) the top portion comprising a first coating having an asphalt-based top surface layer of the top portion having an increased adhesion defined by a granule loss of less than 0.8 grams when the roofing material is soaked in water for seven days and then tested by ASTM Method D4977; and wherein the bottom portion of the coating does not have the increased adhesion;"

Hansen discloses a roofing shingle including a glass fiber mat saturated with a mixture of unblown asphalt and polymer, and a top coating that is a mixture of blown asphalt and filler. A layer of surface granules may be embedded in the top coating. Hansen fails to teach or suggest an asphalt-based top surface layer of the coating

having increased adhesion, in combination with a bottom portion of the coating not having increased adhesion, as recited in claim 53.

George et al. discloses a roofing shingle including an asphalt-based substrate such as an asphalt-saturated glass fiber mat, and a non-asphalt adhesive on the surface of the asphalt-based substrate. Roofing granules are embedded in the top surface of the roofing shingle such that the adhesive provides an interface between the asphalt and the roofing granules. The adhesive is present in an amount sufficient to improve the adhesion of the roofing granules to the asphalt.

In the final Office Action, the Examiner stated that it would have been obvious to have used an adhesive on the top asphalt layer of Hansen in order to increase the ability of the top layer to retain granules because of the teachings of George et al. In the Advisory Action, the Examiner stated that there is clear motivation in George et al. to enhance adhesion to prevent granule removal and enhance resistance to photo-degradation of the asphalt coating, and that as Hansen also has an asphalt coating, one of ordinary skill in the art would also clearly have motivation to transfer the teaching of George et al. to increase adhesion to prevent granule removal in Hansen.

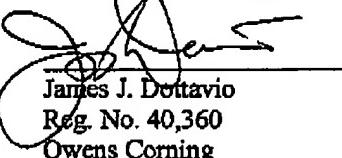
Applicants respectfully submit that it would not have been obvious to use the George et al. adhesive on the top surface of the Hansen roofing shingle. There is no suggestion in Hansen of any need to increase granule adhesion or any need to enhance resistance to photo-degradation of the asphalt coating. Hansen relates to a roofing shingle having improved low temperature flexibility; it is unrelated to the specifics of granules or their adhesion, and it is unrelated to photo-degradation of the asphalt coating. Hansen states that the general design and general preparation of the roofing shingles are left to those skilled in the art. Application of the George et al. adhesive to the top surface of the Hansen roofing shingle would be a very large modification of the shingle in a manner totally unrelated to the objects of the Hansen invention. Conventional roofing shingles do not include a layer of adhesive applied to the top surface; such a modification would be a major change to the way shingles are ordinarily made. Further, such a modification would significantly increase the cost of the shingle, both because of the cost of the additional non-asphalt adhesive material (e.g., a hot melt polymeric adhesive) and the cost of the additional manufacturing step

of applying the adhesive (e.g., by spraying with a spray gun). There would be no motivation to significantly increase the cost of the shingle, and make major changes to the composition and manufacturing process of the shingle, in the absence of any suggestion in Hansen of any need to increase the granule adhesion or improve the resistance to photo-degradation of the asphalt coating.

Moreover, even if the teachings of Hansen and George et al. were combined, the resulting product would be different from the invention recited in amended claim 53. The claimed invention is an asphalt-based roofing material including a mat saturated and coated with an asphalt-based coating, the asphalt-based coating including a top portion having an asphalt-based top surface layer that has increased adhesion, and the asphalt-based coating including a bottom portion that does not have the increased adhesion. In contrast, George et al. requires the use of a non-asphalt adhesive such as a hot melt polymeric adhesive, because (as stated at column 2, lines 4-23) adherence between coating asphalt and granules is subject to deterioration by moisture which can lead to granule loss. In view of the stated motivation to use a non-asphalt adhesive, it would not be obvious to replace the non-asphalt adhesive with an asphalt-based layer having increased adhesion. Therefore, Applicants respectfully submit that claim 53 is nonobvious over Hansen in view of George et al.

If any questions should arise with respect to the above remarks, or if it would in any way expedite the prosecution of this application, it is requested that the Examiner contact Applicants' attorney at the number listed below. If any fees are due in connection with the filing of this amendment, including any fee for a required extension of time under 37 CFR 1.136(a) for which Applicants hereby petition, please charge all necessary fees to deposit account no. 50-0568.

Respectfully submitted,



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